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10/681,194	10/09/2003	Mitsuhisa Kanaya	R2184.0263/P263	5998
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DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403			EXAMINER CHERY, DADY	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/681,194	Applicant(s) KANAYA, MITSUHISA	
	Examiner Dady Chery	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-24 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This communication is responsive to the amendment filed on 09/15/2007.

Response to Arguments

Applicant's arguments filed on 09/15/2007 regarding claims 6,10,15 and 20 have been fully considered but they are not persuasive.

White teaches a method where the source created a list of destination requesting the retransmission of message that has been received with error and broadcasts the missing information within the list to all the users, any users which are not in the list discard the message (Page 4, [0037], lines 20 –29). Which is considered as the function of the ignore instruction.

Claims 3,5,8,9,12,14,17,19,22 and 24 are also rejected for the reasons above. White clearly teaches a method for broadcasting or unicasting the retransmission of the missing information (Page 2, [0014] –[0015]). Which is substantially the same function as determination between broadcast and unicast based on “the number of times of communication operations” as argued by the applicants.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1,4,6,7,10,11,13,15,16,18,20,21, 23 and 30 are rejected under 35

U.S.C. 102(e) as being anticipated by White et al. (US Application 2003/0227934, herein after White).

Regarding claims 1,6,10,15, White discloses a *data communication apparatus* (Fig. 3 (a) and 3 (b)) comprising:

a first communication part (120) which transfers data from one single transfer source to a plurality of other transfer destinations concurrently; The source node (120) sends multicast-broadcast transmission message to a plurality of receivers (122,124,126) (Page 4, [0038]).

a second communication part which transfers data from one single transfer source to another single transfer destination (Fig. 3 (b) 120 to 122); Each node transmits an ACK message to the source node (Page 4, [0038]) is considered as the same function as the instant application.

a re-transfer part which, when receiving reception error information from at least one of a plurality of other transfer destinations which indicates that data reception has not been performed properly as a result of the data transfer being performed by said first communication part for the plurality of other transfer destinations, performing data re-transfer to said at least one of other plurality of transfer destinations with one selected from said first and second communication parts according to the number of said at least

one of other plurality of transfer destinations which has transmitted the reception error information. White discloses a system and a method for retransmitting a data packet as multicast-broadcast where a number of destination nodes failed to receive the data packet and retransmitting using unicast if a single node failed to receive the data packet (Page 2, [0014] –[0015] and Page 3, [0033]). Which is the same function as described by the instant application.

Wherein upon selection of said first communication part, prior to performing said data re-transfer, an ignore instruction is communicated to that portion of said plurality of transfer destination which did not transmit reception error information (Page 4, [0037], lines 20 –29).

Regarding claims 2,7, 11,16 and 21, White discloses *the first communication part employs a multicast data transmission way while the second communication part employs a unicast data transmission way* (page 3, [0033]). The second communication sends NACK/ACK message to the source by using unicast.

Regarding claims 4, 13,18 and 23,White discloses the data communication apparatus (fig. 3 (a) and (b) as claimed in claim 1, wherein:

a method of selecting one from the first communication part and second communication part according to the number of the at least one of the other plurality of transfer destinations which has transmitted the reception error information performed by said re-transfer part comprises a method in which one of the first and second communication

parts with which the number of times of communication operations with the plurality of transfer destinations required until the re-transfer of the data which has not been performed properly is completed since the reception error information has been received becomes smaller should be selected (Page 3, [0033]). Where White discloses a retransmission method using multicast if the error message comes from two or more nodes and using unicast if the error message comes from one node.

Regarding claim 20, White discloses *data communication program comprising instructions for causing a computer which controls a communication apparatus performing data communications (Fig. 3 (a) and 3 (b)).* White discloses a RAM memory that stores the program (Page 2, [0028]).

a first communication part (120) which transfers data from one single transfer source to a plurality of other transfer destinations concurrently, The source node (120) sends multicast-broadcast transmission message to a plurality of receivers (122,124,126) (Page 4, [0038]).

a second communication part which transfers data from one single transfer source to another single transfer destination (Fig. 3 (b) 120 to 122); Each node transmits an ACK message to the source node (Page 4, [0038]) is considered as the same function as the instant application.

a re-transfer part which, when receiving reception error information from at least one of a plurality of other transfer destinations which indicates that data reception has not been performed properly as a result of the data transfer being performed by said first

communication part for the plurality of other transfer destinations, performing data re-transfer to said at least one of other plurality of transfer destinations with one selected from said first and second communication parts according to the number of said at least one of other plurality of transfer destinations which has transmitted the reception error information. White discloses a system and a method for retransmitting a data packet as multicast-broadcast where a number of destination nodes failed to receive the data packet and retransmitting using unicast if a single node failed to receive the data packet (Page 2, [0014] –[0015] and Page 3, [0033]). Which is the same function as described by the instant application.

Regarding claim 30, White discloses a *data communication apparatus* (Fig. 3 (a) and 3 (b)) comprising:

a first communication part (120) which transfers data from one single transfer source to a plurality of other transfer destinations concurrently; The source node (120) sends multicast-broadcast transmission message to a plurality of receivers (122,124,126) (Page 4, [0038]).

a second communication part which transfers data from one single transfer source to another single transfer destination (Fig. 3 (b) 120 to 122); Each node transmits an ACK message to the source node (Page 4, [0038]) is considered as the same function as the instant application.

a re-transfer part which, when receiving reception error information from at least one of a plurality of other transfer destinations which indicates that data reception has not been

performed properly as a result of the data transfer being performed by said first communication part for the plurality of other transfer destinations, performing data re-transfer to said at least one of other plurality of transfer destinations with one selected from said first and second communication parts according to the number of said at least one of other plurality of transfer destinations which has transmitted the reception error information. White discloses a system and a method for retransmitting a data packet as multicast-broadcast where a number of destination nodes failed to receive the data packet and retransmitting using unicast if a single node failed to receive the data packet (Page 2, [0014] –[0015] and Page 3, [0033]). Which is the same function as described by the instant application.

a method of selecting one from the first communication part and second communication part according to the number of the at least one of the other plurality of transfer destinations which has transmitted the reception error information performed by said re-transfer part comprises a method in which one of the first and second communication parts with which the number of times of communication operations with the plurality of transfer destinations required until the re-transfer of the data which has not been performed properly is completed since the reception error information has been received becomes smaller should be selected (Page 3, [0033]). Where White discloses a retransmission method using multicast if the error message comes from two or more nodes and using unicast if the error message comes from one node.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3,5,8,9,12,14,17,19,22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over White as applied to claims 1,6,10,15 and 20 above, and further in view of Suzuki et al. (US Patent 6,334,161, hereinafter Suzuki).

Regarding claims 3,8,12,17 and 22, White discloses the data communication apparatus using multicast and unicast (Page 3, [0033]).

White fails to teach *the multicast data transmission way comprises an isochronous data transmission way while the unicast data transmission way comprises an asynchronous data transmission way.*

However, Suzuki teaches a method of using an isochronous and asynchronous transmission mode (Col. 6, lines 41 –48). Which is the same function as described by the instant application.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use isochronous and asynchronous transmission mode for transferring real-time and mixed data (Col. 6, lines 43 – 48).

Regarding claims 5, 9,14,19 and 24, White fails to teach *the data transferred to the plurality of other transfer destinations comprises image data.*

However, Suzuki teaches *the data transferred to the plurality of other transfer destinations comprises image data* (Fig. 1A, 1B and Col. 5, lines 54 67).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use image data for transferring digital video data (Col. 5, lines 54 –55).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dady Chery whose telephone number is 571-270-1207. The examiner can normally be reached on Monday - Thursday 8 am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dady Chery 11/02/2007



RICKY Q. NGO
SUPERVISORY PATENT EXAMINER